

# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:  
Davies Collison Cave  
Level 15  
1 Nicholson Street  
MELBOURNE VIC 3000

## PCT NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

(PCT Rule 44.1)

TDO

<p style="font-size: 1.5em; font-family: cursive; margin: 0;">Resp due 6/4/04</p>	<p>Date of mailing (day/month/year) <span style="float: right;">23 JAN 2004</span></p>
<p>Applicant's or agent's file reference 12381870/TDO/FMT</p>	<p><b>FOR FURTHER ACTION</b> See paragraphs 1 and 4 below</p>
<p>International application No. PCT/AU2003/001634</p>	<p>International filing date 5 December 2003</p>
<p>Applicant <b>THE CORPORATION OF THE TRUSTEES OF THE ORDER OF THE SISTERS OF MERCY IN QUEENSLAND et al</b></p>	

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.  

**Filing of amendments and statement under Article 19:**  
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When?	The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.
Where?	Directly to the International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.
2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.
3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.  
☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.
4. **Reminders**  

Shortly after 18 months from the priority date, the international application will be published by the International Bureau.  
If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later);  
otherwise, the applicant must, within 20 months from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19 months.  
See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/AU  
**AUSTRALIAN PATENT OFFICE**  
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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>12381870/TDO/FMT</b>	<b>FOR FURTHER ACTION</b>	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. <b>PCT/AU2003/001634</b>	International filing date ( <i>day/month/year</i> ) <b>5 December 2003</b>	(Earliest) Priority Date ( <i>day/month/year</i> ) <b>6 December 2002</b>
Applicant <b>THE CORPORATION OF THE TRUSTEES OF THE ORDER OF THE SISTERS OF MERCY IN QUEENSLAND et al</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of **6** sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
- ☒ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☒ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title,
- ☐ the text is approved as submitted by the applicant.
- ☒ the text has been established by this Authority to read as follows:

**DEC-205 (Ly 75) / DCL-1 intergenic splice variants associated with Hodgkin's disease, and uses thereof**

5. With regard to the abstract,
- ☐ the text is approved as submitted by the applicant
- ☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

- ☐ as suggested by the applicant.
- ☐ because the applicant failed to suggest a figure
- ☐ because this figure better characterizes the invention

☒ None of the figures

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2003/001634

**Box I** Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☒ Claims Nos : 1, 29 and 37-56 (all partially)  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
See separate sheet.
  
3. ☐ Claims Nos :  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

**Box II** Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

**Box III** TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The inventors have identified intergenically spliced DEC-205/DCL-1 mRNAs, which encode the intact DEC-205 ectodomain together with an additional carbohydrate recognition domain, a transmembrane domain and a cytoplasmic domain derived from DCL-1. These DEC-205/DCL-1 intergenic splice variants were identified on Reed-Sternberg cells and thus have application in the therapy and investigation of Hodgkin's disease.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2003/001634

**A. CLASSIFICATION OF SUBJECT MATTER**Int. Cl. <sup>7</sup>: C12N 015/12; A61P 035/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

**SEE ELECTRONIC DATABASE BOX BELOW**

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

**SEE ELECTRONIC DATABASE BOX BELOW**

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

[WPIDS] [CA] [MEDLINE] [DGENE] [NCBI]: DCL1; DCL 1; DEC205; DEC 205; LY75; LY 75; LYMPHOCYTE ANTIGEN 75; C TYPE LECTIN; C TYPE LECTIN RECEPTOR; SPLICE VARIANT; SV; INTERGENIC; SEQ ID NO 2; SEQ ID NO 21.

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database accession # BAB22377. Unnamed protein product [Mus musculus]. 228 amino acids. 15 February 2001. Kawai J et al. This sequence is 100% identical to SEQ ID NO 8 over 228 amino acids.	40-42, 44, 46-48, 50, 55, 56
X	Database accession # BAB23242. Unnamed protein product [Mus musculus]. 219 amino acids. 15 February 2001. Kawai J et al. This sequence is 100% identical to SEQ ID NO 8 over 219 amino acids.	40-42, 44, 46-48, 50, 55, 56

☒ Further documents are listed in the continuation of Box C☐ See patent family annex

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 19 January 2004	Date of mailing of the international search report 23 JAN 2004
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized officer  TERRY MOORE Telephone No : (02) 6283 2632

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/AU2003/001634

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database accession # AAH05501. 1110055L24 Rik protein [Mus musculus]. 168 amino acids. 3 April 2001. Strausberg RL et al. This sequence is 99.5% identical to SEQ ID NO 8 over 168 amino acids.	40-42, 44, 46-48, 50, 55, 56
P, X	Kato M et al (2003). Hodgkin's lymphoma cell lines express a fusion protein encoded by intergenically spliced mRNA for the multilectin receptor DEC-205 (CD205) and a novel C-type lectin receptor DCL-1. The Journal of Biological Chemistry 278(36) 34035-34041. See the entire document.	1-56

**Supplemental Box**

(To be used when the space in any of Boxes I to VIII is not sufficient)

**Continuation of Box No: I**

The full scope of claims 1, 29 and 37-56 has not been searched because these claims are so inadequately supported by the description that a meaningful search is impossible.

The applicant's invention resides in the provision of intergenically spliced DEC-205/DCL-1 mRNA, termed '*DEC-205 SV*' (see page 19, lines 17-22), which encodes the intact DEC-205 ectodomain together with an additional carbohydrate recognition domain, a transmembrane domain and a cytoplasmic domain derived from DCL-1. As such, the applicant is entitled to claims DEC-205 SV and uses thereof.

Claims 1, 29, 37-38 and 51-54 are directed towards any DEC-205 intergenic splice variant, and methods of using such splice variants. The specification does not provide an overarching principle whereby any intergenic splice variant of DEC-205 may be identified, it merely provides support for DEC-205/DCL-1 splice variants.

Claims 39, 41 and 45-50 are directed towards agents that modulate the activity of DEC-205 SV, and uses of these agents. These are not claims to uses of DEC-205 SV, these are claims to agents that inherently interact with DEC-205 SV, and which owe nothing to the teachings of the specification.

Claims 40, 42-44, 46-50, 55 and 56 Claims 55 and 56 are directed towards methods of using DCL-1, and claims 40, 42-44 and 46-50 are directed towards agents that modulate the activity of DCL-1, and uses of these agents. DCL-1 is an agent that is capable of modulating DEC-205 SV.

The claims have been searched as far as they relate to DEC-205/DCL-1 splice variants, or DCL-1, or uses thereof.

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